

REMARKS**Summary of the Office Action**

Claims 12-15 stand rejected under 35 U.S.C. § 101 because the claimed invention is allegedly directed to non-statutory subject matter.

Claims 6 and 12-15 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite.

Claims 1-11 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Steinhaus et al. (U.S. Patent No. 5,215,098) (hereinafter "Steinhaus").

Claims 12-16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Steinhaus.

Claim 1 stands objected to because of informalities.

Summary of the Response to the Office Action

Applicants have canceled claim 16 without prejudice or disclaimer. Applicants have also amended claims 1, 6, 8, and 12-15 and added new claims 17-19 to differently describe embodiments of the disclosure of the instant application's specification and/or to improve the form of the claims. Accordingly, claims 1-15 and 17-19 remain pending for consideration.

Claim Objection

Claim 1 stands objected to because of informalities. The Examiner alleges at page 6 of the Office Action that claim 1 includes the following incorrect punctuation

"electrocardiogram.waveform." Applicants carefully reviewed claim 1 and cannot locate any such informality in the claim. Accordingly, withdrawal of the objection to claim 1 is respectfully requested.

Rejection under 35 U.S.C. § 101

Claims 12-15 stand rejected under 35 U.S.C. § 101 because the claimed invention is allegedly directed to non-statutory subject matter. Applicants have amended claims 12-15 to improve the form of the claims generally along the lines of the Examiner's helpful suggestion at page 2 of the Office Action. Accordingly, withdrawal of the rejection of claims 12-15 under 35 U.S.C. § 101 is respectfully requested.

Rejection under 35 U.S.C. § 112, second paragraph

Claims 6 and 12-15 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Applicants have amended claims 6 and 12-15 in light of the Examiner's comments at pages 2-3 of the Office Action. For example, the Examiner's helpful suggestion of changing the dependency of claim 6 has been adopted. Applicants respectfully submit that claims 6 and 12-15, as amended, fully comply with the requirements of 35 U.S.C. § 112, second paragraph. Accordingly, Applicants respectfully request that the rejections under 35 U.S.C. § 112, second paragraph be withdrawn.

Rejections under 35 U.S.C. §§ 102(b) and 103(a)

Claims 1-11 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Steinhaus. Claims 12-16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Steinhaus. Applicants have canceled claim 16 without prejudice or disclaimer, rendering the rejection of claim 16 moot. Applicants have also amended claims 1, 8 and 12 to differently describe embodiments of the disclosure of the instant application's specification. To the extent that these

rejections might be deemed to apply to the claims as newly-amended, they are respectfully traversed for at least the following reasons.

Applicants respectfully traverse the interpretations of Steinhaus asserted in the Office Action. In particular, the Office Action's assertion that the database of embodiments of the instant application responds to the temporary buffer 80 of Steinhaus is not technically accurate. Applicants respectfully submit that the database of embodiments of the disclosure of the instant application includes the electrocardiogram waveform data related to each person to be examined. See, for example, page 25, lines 6-18 of the instant application's specification. However, the temporary buffer 80 of Steinhaus does not meet these technical features of the database of embodiments of the instant application. Even further, the temporary buffer 80 of Steinhaus is instead more similar to the data waveform extractor 104 of embodiments of the instant application.

Accordingly, Applicants respectfully submit that Steinhaus does not disclose, or even suggest, at least these important technical features of independent claims 1, 8 and 12. In order to advance the prosecution in these regards, Applicants have newly-amended each of independent claims 1, 8 and 12 to describe combinations that include "a database in which at least one set of electrocardiogram waveform data of a living body related to each person to be examined are stored in advance" of the present invention." As a result, Applicants respectfully submit that the prior art does not disclose, or even suggest the combinations of features described in newly-amended independent claims 1, 8 and 12.

Accordingly, Applicants respectfully assert that the rejections under 35 U.S.C. §§ 102(b) and 103(a) should be withdrawn because Steinhaus does not teach or suggest each feature of independent claims 1, 8 and 12, as amended. As pointed out in MPEP § 2131, "[t]o anticipate a claim, the reference must teach every element of the claim." Thus, "[a] claim is anticipated only

if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Verdegaal Bros. v. Union Oil Co. Of California, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987)." Similarly, MPEP § 2143.03 instructs that "[t]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 409 F.2d 981, 180 USPQ 580 (CCPA 1974)." Furthermore, Applicant respectfully asserts that the dependent claims are allowable at least because of their dependence from newly-amended claim 1, 8 or 12, and the reasons set forth above.

Newly-Added Claims

Applicants have added new claims 17-19 to differently describe embodiments of the disclosure of the instant application and to afford Applicants with scope to which they are entitled.

New claim 17 is based, for example, on page 31, line 27 – page 32, line 19 of the instant application's specification. Claim 17 includes a feature in that "a control unit for calculating a standard deviation of the R-R intervals acquired in a heartbeat signal generated in the living body, and drawing a comparison between the standard deviation and a predetermined threshold." Claim 17 goes on to explain that "if the calculated standard deviation is less than the threshold, the control unit concludes that there is no noise, thus operating to give the output of the acquired unit to the production unit. Claim 17 goes on further to explain that "if the calculated standard deviation is above the threshold, the control unit issues an alarm or re-acquires another heartbeat signal." Applicants respectfully submit that Steinhaus does not disclose, or even suggest, the technical features of newly-presented independent claim 17.

Newly-added claim 18 is based, for example, on page 52, lines 6-14 of the instant application's specification. Claim 18 includes a feature in that "the search unit searches the database based on an amount indicating an interval of time between P and Q waves, a QRS width, and an interval of time between the Q and T waves." Applicants respectfully submit that Steinhaus does not disclose, or even suggest, the technical features of newly-presented independent claim 18.

Newly-added claim 19 is based, for example, on page 28, line 23 – page 29, line 6 of the instant application's specification. Claim 19 includes a feature in that "the cross-correlation processing unit calculates R_{xy} defined by the equation (1) every time the delay time τ is shifted by a predetermined amount:

$$R_{xy}(t) = \lim_{T \rightarrow 0} \frac{1}{T} \int_{\frac{T}{2}}^{\frac{T}{2}} x(t)y(t + \tau)dt \quad \dots (1),$$

where x denotes the electrocardiogram waveform data of which lower-frequency components have been removed, y denotes the template data, τ denotes a delay time and provides a value of the R_{xy} to the calculation unit." Accordingly, Applicants respectfully submit that Steinhaus does not disclose, or even suggest, the technical features of newly-presented independent claim 19.

CONCLUSION

In view of the foregoing, Applicants submit that the pending claims are in condition for allowance, and respectfully request timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicants' undersigned representative to expedite prosecution. A favorable action is awaited.

EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. § 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0573. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

DRINKER BIDDLE & REATH LLP



By:

Paul A. Fournier

Reg. No. 41,023

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Customer No. 055694

DRINKER BIDDLE & REATH LLP

1500 K Street, N.W., Suite 1100

Washington, DC 20005-1209

Tel.: (202) 842-8800

Fax: (202) 842-8465